Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Amendment of Part 15 Regarding	**)**	**ET Docket No. 04-37**
New Requirements and Measurement	**)**	
Guidelines for Access Broadband	**)**	
Over Power Line Systems	**)**	

To: The Commission

COMMENTS OF
THE POTOMAC VALLEY RADIO CLUB

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SUMMARY

In an earlier stage of this proceeding the Potomac Valley Radio Club, Inc. ("PVRC"), a non-profit Amateur Radio organization with over 750 active members, expressed its view that Broadband Power Line ("BPL") deployment under Part 15 of the Rules poses a serious threat to the Amateur Radio Service and the national emergency telecommunications services it supports. The Commission has decided to proceed with BPL, but in so doing has stated unequivocally that it will protect licensed service providers. PVRC submits these Comments to assist the Commission in fashioning its BPL rules to more effectively limit the potential for harm to licensed services while not impeding the advance of BPL.

PVRC proposes specific rules changes to Part 15 that will provide necessary operational protections and at the same time allow BPL to unfold as a new broadband service in the marketplace. These include reporting information requirements and definitive accountability for resolving interference complaints. Such specificity is necessary because BPL will deploy ubiquitously distributed devices in a way that has not been attempted before and that has the potential for producing considerable harmful interference to licensed services.

In addition, PVRC cautions that without adequate equipment design provisions BPL will summarily fail due to its exceptional susceptibility to interference from licensed services. If BPL does fail, for this or other reasons, the electric utilities' ratepayers and investors will be left with a massive amount of stranded plant.

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COMMENTS OF THE POTOMAC VALLEY RADIO CLUB

I. INTRODUCTION

In an earlier stage of this proceeding the Potomac Valley Radio Club, Inc. ("PVRC"), a non-profit Amateur Radio organization with over 750 active members, expressed its view that Broadband Power Line ("BPL") deployment under Part 15 of the Rules poses a serious threat to a variety of licensed services, but particularly to the Amateur Radio Service and the national emergency telecommunications services it supports.[1] Since then, the Commission has decided to proceed with BPL, but in so doing has stated unequivocally that it will protect

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[1] See PVRC Reply Comments, August 20, 2003 (*In the Matter of Inquiry Regarding Carrier Current Systems, Including Broadband Over Power Line Systems*, ET Docket No. 03-104, 68 Fed. Reg. 28182 (June 2, 2003), *corrected* 68 Fed. Reg. 32720 (June 2, 2003) [dates corrected], *Notice of Inquiry*.

licensed service providers: "[BPL] will operate under our part 15 non-interference conditions."[2] PVRC submits these Comments to assist the Commission in fashioning its BPL rules to more effectively limit the potential for harm to licensed services while not impeding the advance of BPL.[3] It also offers improved procedures for reporting and resolving interference complaints with an objective of avoiding unnecessary regulatory oversight and the resulting burden on Commission resources.

PVRC's members are Commission licensees who vigorously pursue Amateur Radio activities on the HF and VHF bands. Most of them are capable of providing emergency communications services at times of national, regional or local need, using sophisticated stations they have gone to great personal expense to assemble.[4]

With this background, PVRC now offers its comments on the Commission's NPRM.

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[2] In the Matter of Carrier Current Systems, Including Broadband Over Power Line Systems, ET Docket No. 03-104; Amendment of Part 15 Regarding New Requirements and Measurement Guidelines for Access Broadband Over Power Line Systems, ET Docket No. 04-37, 69 Fed. Reg. 12,612 (March 17, 2004), Notice of Proposed Rulemaking ("NPRM"). The NPRM proposes to amend Part 15 of the rules to adopt new requirements and measurement guidelines for BPL technology.

[3] NPRM at para. 39.

[4] Amateur Radio operators frequently use emergency power systems, battery-powered equipment, portable antennas, mobile stations, multi-mode communications systems, etc. Indeed, Amateur Radio is well recognized as a national resource for emergency communications. One need only recall the 9/11 events to appreciate the enormous service that Amateur Radio operators provided on-site, as well as at virtually every natural disaster that has occurred over the years in the United States. The Commission may remember that countless Amateur Radio operators were distributed over many hundreds of square miles under the flight path of Shuttle Columbia reporting their finds to NTSB investigators to assure immediate access to evidence.

II. DIRECTIVE ANTENNAS DO NOT REDUCE POWER LINE NOISE INTERFERENCE

The Commission has made a large number of policy choices in its NPRM, but in one rather important technical area it has seemingly been misled. The Commission suggests that noise interference from power lines to nearby high-gain antennas is already a problem for Amateur operations, and that "many amateurs already orient their antennas to minimize the reception of emissions from nearby electric power lines."[5] The implication is that power line noise is not a problem now and BPL interference can similarly be rendered innocuous simply by antenna orientation. But both the Commission's assertion and the implication about BPL are incorrect. In the Amateur Radio Service, the principal purpose of a directive antenna is not the avoidance of power-line noise but rather to increase the transmitted and received signal strengths (relative to noise) for the desired communication in a given direction. Where a noise source is located between the antenna and the desired signal, the antenna in effect gathers the noise along with the signal, making the interference more severe and degrading reception of the desired signal.[6]

In most cases, the cause of radio noise from power lines is defective hardware, such as loose insulators or faulty components. Responsiveness of power companies to requests by Amateurs to repair defective power line hardware depends largely on the sophistication of the local power company. All power companies are responsible under the Communications Act to eliminate interference that their systems cause to licensed radio services. In some cases, such as

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[5] NPRM at para. 35.

[6] In effect, the signal-to-noise ratio is not improved by turning the antenna. The only case where a directional antenna can increase the signal-to-noise ratio is where the signal source is from a significantly different azimuth than the noise source. Multiple

Virginia Power in suburban Washington, DC, there are specialists on staff who address these problems quickly and competently. Such responsiveness has not always been the case, nor is it universal. In some cases, written complaints have been filed with the Commission that have led to correspondence between the Commission and the power companies. In that correspondence, the Commission has "reminded" the power companies of their obligation to cooperate in resolving the harmful interference they are causing licensed radio services.[7]

It would be a serious misjudgment to assume that all power companies are responsive to citizen complaints of radio and television interference, just as it would be a serious misapprehension to believe that the use of directive antennas resolves power line noise interference for Amateurs. There can be no mistake in the Commission's understanding of the impact of BPL on Amateur Radio reception: BPL will cause interference and directive antennas are not part of the solution.

III. SPECIFIC RULE CHANGES IN PART 15

The Commission has appropriately emphasized that BPL must operate under

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nearby power lines radiating BPL interference would worsen the signal-to-noise ratio in most if not all directions.

[7] *See* Exhibit 1 hereto. Further, Progress Energy Corporation, which is conducting an advanced test of its BPL network in the Raleigh, North Carolina area, has told the Commission that it interprets "harmful interference" in a way that does not require removal of its signals from the upper portion of the 14 MHz Amateur band and the lower portion of the 21 MHz Amateur band. This is a discouraging but illustrative example of the danger to Amateur Radio and other safety communications services from power companies that choose to misinterpret the Part 15 rules to suit their own interests – without regard for licensed services.

Part 15 non-interference conditions. Specifically, "[BPL] operations must cease if harmful interference to licensed services is caused."[8] While the Commission expresses the hope that BPL "likely will be managed on a more controlled basis as compared to other typical Part 15 operations," it appropriately concludes that it must require BPL system operators to be capable of modifying system performance to mitigate or avoid harmful interference to licensed radio services such as Amateur Radio. These adaptive interference mitigation techniques would include power reduction and frequency band exclusion capability. Accordingly, the Commission has proposed a new Section 15.1509(f) that would provide a BPL-specific framework to require remediation of interference to licensed operations. It has also proposed a new Section 15.1509(g) to create a BPL deployment database. The Commission's language, however, inadequately specifies the responsibilities and procedures needed to meaningfully protect licensed services.

A. Section 15.1509(f) – Operational Response to Harmful Interference from BPL

The Commission has correctly stated that BPL must comply with the non-interference requirements of Part 15. Ubiquitous deployment of BPL transmitters that use power lines as incidentally-radiating conductors requires particular care to assure against massive levels of harmful interference to licensed services. The Commission must be prepared to assure this

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[8] *Id*. at para. 39. It must be understood here that an existing BPL system will not be protected from interference complaints simply because it exists prior to commencement of operation by a licensed station in the Amateur Radio, public safety or any other licensed service. Put simply, there can be no "grandfathering" of BPL activities under Part 15 when it comes to harmful interference to licensed services. If the any licensed station experiences harmful interference, the BPL operator bears complete responsibility for mitigating the interference. Similarly, if an existing licensed station were authorized to use new frequencies, an interfering BPL operation would need to adapt or cease operations.

protection with a clear process and requirements for identifying and resolving harmful interference complaints. PVRC recommends that proposed Section 15.109(f) be modified so that it more clearly requires that BPL operators react to complaints of interference quickly and decisively. Only with procedural specificity and accountability can harmful interference from BPL operations be meaningfully remedied and licensed services remain adequately protected. Any other approach likely would lead to regulatory intervention, remediation delay and damage to the licensed services and the public interest, and invite political consequences.

Because the Amateur Radio Service and other licensed services employ bands of frequencies rather than specific fixed frequency assignments, it would be counterproductive to erect a frequency-specific complaint mechanism in Section 15.1509(f). Thus, to avoid repetitive complaints about a particular frequency or series of adjacent frequencies, a complaint about BPL interference should be based on a frequency band and remediation should be implemented in terms of that band. Similarly, the burden must always remain squarely on the BPL operator to resolve the interference completely over the affected band before restoring the interfering BPL service. It is of little practical utility to allow the BPL operator to simply shift a single frequency to an adjacent one and then continue to cause the same interference.

Moreover, there is no benefit to this Section 15.1509(f) unless the BPL operator responds expeditiously and in good faith to receipt of an interference complaint. Once a complaint is filed with a BPL operator, the operator should be able to respond within 24 hours and activate appropriate remediation. Indeed, if as BPL proponents claim power lines do not radiate BPL signals very far, remediation would apply typically to just one terminal device. Under such circumstances, responding appropriately to an interference complaint would not adversely affect BPL service generally or in a large area.

In the unlikely event of a dispute regarding the source of the interference, the complainant can reasonably be required to show that BPL is indeed the cause of the interference. A recording, description of the observed modulation method, directionality or other technical means would be adequate. At that point, the BPL operator would be responsible for immediate remediation. Because the BPL operator likely would be responding to a very small service area and presumably could continue adjacent services using the targeted remediation techniques recommended by the Commission in the NPRM, placing this burden on the BPL operator is not unreasonable, and the volume of such appeals likely would be very limited.. In any event, a Commission licensee should not bear an exceptional burden to stop a Part 15 equipment owner from causing harmful interference, particularly where the damage to the licensee is significant and the Part 15 owner's remediation costs are minimal. Under PVRC's proposal, which is detailed below, the BPL provider is offered ample opportunity to work with the complainant to cure the interference problem in real time at the local level. Failing that, the complainant may submit more definitive support of his or her interference complaint, at which point the BPL operator must remediate immediately.[9]

With remote control as recommended by the Commission and use of frequency band agility, a BPL terminal or related equipment can be shut down or adjusted within moments to eliminate virtually any case of interference. To provide a generous working margin while still

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[9] For example, an Amateur Radio licensee finds a hugely strong interfering signal across the 14 MHz band and determines through Section 15.1509(g) information that the local BPL operator is the source of the harmful interference. A mere telephone call to the BPL operator should be enough for the BPL operator to respond with remediation. In that case, no further action by the Amateur should be necessary. The BPL operator acting in good faith likely would simply modify the frequency band in use by the offending terminal equipment and call it a day. In the event of a more contentious

imposing the urgency needed to eliminate harmful interference to licensed services, PVRC recommends a 24-hour response requirement. Perhaps with greater experience, this response period can be reduced. Meanwhile, the requirement PRVC proposes will assure that the burden of responding and remediation lies with the interfering entity. Moreover, BPL terminals that are the source of harmful interference should not be reactivated (or returned to pre-complaint operating status) absent assurances that such harmful interference will not resume. Resumption of BPL transmissions in the same frequency band would inexorably lead to an endless cycle of complaint, remediation and complaint.

PVRC's recommendations for Section 15.1509(f) are consistent with the Commission's principle of protecting licensed services under Part 15 of the Rules.[10] Importantly, none of PVRC's requirements would cause any significant burden on overall BPL operations, yet they would assure an orderly and effective means of identifying and resolving cases of harmful interference by BPL operations to licensed services. Accordingly, PVRC proposes the following language for Section 15.1509(f):

> Access BPL systems shall incorporate adaptive interference mitigation techniques such as dynamic or remote reduction in power and removal of transmissions in frequency bands where interference to licensed operations has been reported. Access BPL systems shall incorporate a shut-down feature to deactivate units, including repeaters and series links, appearing to cause the harmful interference. The BPL operator must respond

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exchange, other Commission processes remain available to the complainant. *See, e.g.*, Exhibit 1 hereto.

[10] Interference from BPL could also be caused to licensed services where there is no overlap of primary operating frequencies. This would occur when BPL equipment uses devices that are inadequately filtered and produce emissions outside the intended bands of BPL operation. Such interference would require complete shut-down of the offending BPL equipment. Also, BPL may deploy modulation techniques that increase the background noise level in a licensed frequency band as a function of user demand. Immediate responsiveness by the BPL provider to complaints of harmful interference will assure that the total level of harmful interference is not exacerbated by enhanced demand.

> directly to any complainant within 24 hours of notification of interference or must remediate the interference within the 24-hour period. If the parties do not agree that BPL is the source of interference within this time period, the complainant will provide the BPL operator information sufficient to reasonably demonstrate that BPL is the interference source. Within 24 hours of providing such information, the BPL operator must activate its adaptive interference mitigation technique to eliminate the interference. The BPL operator may not resume the use of operating parameters previously shown to cause interference to stations in a licensed service without cooperative testing and formal confirmation by the station operator that the interference no longer occurs.

In the NPRM, the Commission seeks comment on its proposal that BPL devices must be capable of operating across a minimum range of frequencies and have the capability to remotely exclude a specific percentage of frequencies within this range.[11] The Commission also seeks comment on the costs and effectiveness of this and other approaches. Some BPL operators already assert that their terminal equipment is capable of notching out frequency bands, so the level of technology and the costs associated with it are already factored into BPL deployment. PVRC urges the Commission to make it clear to BPL advocates that any marginal costs

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[11] NPRM at para. 42. PVRC's proposals fully support the Commission's recommendations in this regard. For its part, the National Telecommunications and Information Administration ("NTIA"} has concluded the following in its Phase I Report, NTIA 04-413, April 27, 2004, Executive Summary at vii [emphasis added]:

"NTIA suggested several means by which BPL interference can be prevented or eliminated should it occur. Mandatory registration of certain parameters of planned and deployed BPL systems would enable radio operators to advise BPL operators of anticipated interference problems and suspected actual interference; thus, registration could substantially facilitate prevention and mitigation of interference. BPL devices should be capable of frequency agility (notching and/or retuning) and power reduction for elimination of interference. NTIA further recommends that BPL developers consider several interference prevention and mitigation measures, including: routine use of the minimum output power needed from each BPL device; avoidance of locally used radio frequencies; differential-mode signal injection oriented to minimize radiation; use of filters and terminations to extinguish BPL signals on power lines where they are not needed; and judicious choice of BPL signal frequencies to decrease radiation."

associated with deploying compliant BPL terminals are secondary to the public interest benefits of protecting licensed services.

In order to comply with the requirements of either the Commission's or PVRC's proposed Section 15.1509(f), BPL equipment will have to have multiband operational capacity as well as display virtually instantaneous frequency agility. Indeed, technical performance demonstrations of typical terminal devices used by BPL operators hint strongly at the likelihood that BPL equipment will need to be built with highly adaptive and sharp filters to be able adequately to protect licensed services.[12] Such robust filtering is also needed to protect BPL equipment from being disabled by nearby licensed operations. *See* discussion, *infra* at Section III.

In the NPRM, the Commission encourages BPL providers and manufacturers to work with Amateurs to develop appropriate mitigation requirements.[13] Under PVRC's proposal, the stage will be set for these entities working toward a common goal using common procedures and definitions.

As to the appropriate period of time that the Commission should allow for BPL systems to come into compliance with any new requirements in this rulemaking, nothing short of full compliance immediately upon adoption of the rules would afford protection to licensed services. Only BPL equipment capable of responding to the shut-down requirement or other interference mitigation procedures should be deployed. Accordingly, PVRC strongly urges the Commission to require immediate compliance by any system that is currently operating or will

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[12] Amateur Radio Research and Development Corporation. www.amrad.org. See Exhibit 1 hereto for examples of interference letters to power companies following their failure to respond to Amateur Radio interference complaints.

[13] NPRM at para. 42.

provide BPL service following adoption of these BPL rules. PVRC would not object to a reasonable grace period of perhaps 90 days for bringing existing systems into compliance, provided such systems remain subject to the same requirement (by manual if not remotely activated means) upon complaint of harmful interference.

B. Section 15.1509(g) – Notification and Database Access

The Commission has also proposed to require BPL operators to submit information on their systems to an industry-operated entity, so that data regarding their operation can be used to readily identify the source in the event of harmful interference to a licensed station. It is essential, of course, that this database contain the identity of the company providing BPL service at any given location, as well as the name and telephone number of the contact person for that company and location. PVRC urges the Commission to include bandwidth and band of operation in the information required as well as a description of the modulation technique used. Limiting the technical data to simply the type of modulation used will not provide sufficient detail to allow an assessment and identification of the interfering BPL signal. It is also necessary that the database contain details regarding the methods used for accomplishing both frequency shifting and remote shutdown in the event of harmful interference. Without this kind of information, none of which is proprietary in nature, licensed service users will not be able to adequately confront BPL operators' claims of inability to deal with reports of harmful interference in a timely manner, undermining the ability of the Commission to protect its licensed services.

PVRC further believes that a centralized system accessible by Internet browsers is absolutely necessary. A common database format jointly developed by the United Telecom Council with participation by the American Radio Relay League (or some other public

interest entity) would be appropriate, with clear instructions and procedures outlined and preserved by the database manager and made public on the website. Under no circumstances should there be any charge for access to the database or for complaints filed using its contents, *i.e.*, under Section 15.1509(f) of the rules.

Consistent with these suggestions, PVRC proposes the following language for Section 15.1509(g):

> Entities operating Access Broadband over Power Line systems shall supply to an industry-operated entity recognized by the Federal Communications Commission and the National Telecommunications and Information Administration information on all existing, changes to existing and proposed Access BPL systems for inclusion in a database that is accessible by the Internet to all interest parties at no charge. Such information shall include the installation locations, frequency bands of operation, bandwidths of transmissions, types of modulation used and history/status of complaints of harmful interference for all such systems. It shall also include the names of the companies providing such service in each location and a contact person and telephone number for that company/location.

PVRC urges the Commission to adopt this revised Section 15.1509(g).

IV. BPL WILL BE SUSCEPTIBLE TO INTERFERENCE BY LICENSED STATIONS

In denying an Amateur Radio assignment in the 136 kHz band, the Commission found that the power-line carrier ("PLC") signals in this band, by which power companies control their distribution equipment remotely, might be adversely affected by Amateur Radio signals, even those as weak as one-watt EIRP.[14]

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[14] *See* Comments of ARRL in NOI at paras. 5-6. *See* also, *Report and Order in ET Docket No. 02-98*, released May 14, 2003, at para. 18.

Once BPL is deployed, hundreds of thousands of Commission-licensed stations will be operating in close proximity to BPL systems, transmitting in most cases far in excess of one-watt EIRP. Amateur Radio stations, for example, will be transmitting up to 1,500 watts with directional antennas located within tens of meters of medium-voltage ("MV") power lines. Other licensed stations, including safety and government services transmitting in the HF, VHF and UHF spectrum, will likely cause even more widespread interference to BPL – a service expressly unprotected under Part 15. Mobile transmitters, which are increasingly common in all of these services, will further complicate the situation.

The Commission appears not to have recognized the practical or political implications of this potentially explosive result. Proponents of BPL have tried to skirt the issue because they recognize that repeated, widespread disabling of BPL by licensed radio stations operating within the terms of their licenses could undermine the competitiveness, if not the very viability, of BPL, and produce stranded power company plant worth millions of dollars. No analysis of this risk has been published in the Wall Street Journal or any other publicly recognized periodical to balance the public relations announcements through which BPL proponents have heralded the advent of their new service.

At the very least, the Commission should recognize the risk to BPL equipment – and perhaps BPL subscribers – by operation of licensed HF and VHF stations. AMRAD for its part has reported that transmission of just ten watts of HF power ten meters from a typical BPL receiver can cause permanent damage to the receiver. Lower power levels can disrupt Internet connectivity for considerably greater distances. Hopefully, BPL manufacturers will design and build more robust terminals, but until then the susceptibility of their devices to interference from licensed services should be a matter of concern to potential subscribers as well as BPL investors

and electrical power ratepayers. The Commission should require BPL providers to notify all prospective or actual subscribers of the risk of interference from licensed operators. The notice should emphasize that such interference is not legally the fault of the licensed station.

V. CONCLUSION

For the reasons discussed herein, PVRC strongly urges the Commission to adopt the rules proposed by PVRC to assure appropriate identification of BPL operations and provide sufficiently robust and responsive procedures for mitigating harmful interference to licensed radio services. PVRC also urges the Commission to caution future users of BPL of the risks of interference to their service by licensed operations in the HF and VHF spectrum. BPL users should be warned that under Part 15 they have no lawful remedy other than choosing another broadband technology.

Respectfully submitted,

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40282 Doe Run Lane
Paeonian Springs, VA 20129

EXHIBIT I

On July 10 and 11, 2003, Sharon Bowers, Deputy Chief, Consumer Inquiries & Complaint Division, Consumer & Governmental Affairs Bureau, FCC, sent letters to company executives who had failed to respond to complaints about interference. These letters included the following recipients:

Mr. Herman Morris, Jr.
President and CEO
Memphis Light Gas and Water
220 S. Main St
Memphis, TN 38103

Mr. E. Linn Draper, Chairman
American Electric Power Company
1 Riverside Plaza
Columbus, OH 43215

Mr. Peter Burg, CEO
FirstEnergy Corporation
P.O. Box 3687
Akron, OH 44309

The substantive contents of the letters were as follows:

Dear [ ]:

The Federal Communications Commission has received complaints that equipment operated by Jersey Central Power & Light may be causing harmful radio interference to an operator in the Amateur Radio Service. The complainant is:

[complainant redacted]

The FCC has the responsibility to require that utility companies rectify such problems within a reasonable time if the interference is caused by faulty power utility equipment. Under FCC rules, most power-line and related equipment is classified as an "incidental radiator." This term is used to describe equipment that does not intentionally generate any radio-frequency energy, but that may create such energy as an incidental part of its intended operation.

To help you better understand your responsibilities under FCC rules, here are the most important rules relating to radio and television interference from incidental radiators:

Title 47, CFR Section 15.5 General conditions of operation.

(b) Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator.

(c) The operator of the radio frequency device shall be required to cease operating the device upon notification by a Commission representative that the device is causing harmful interference. Operation shall not resume until the condition causing the harmful interference has been corrected.

Title 47, CFR Section 15.13 Incidental radiators.

Manufacturers of these devices shall employ good engineering practices to minimize the risk of harmful interference.

Title 47, CFR Section 15.15 General technical requirements.

(c) Parties responsible for equipment compliance should note that the limits specified in this part will not prevent harmful interference under all circumstances. Since the operators of Part 15 devices are required to cease operation should harmful interference occur to authorized users of the radio frequency spectrum, the parties responsible for equipment compliance are encouraged to employ the minimum field strength necessary for communications, to provide greater attenuation of unwanted emissions than required by these regulations, and to advise the user as to how to resolve harmful interference problems (for example, see Sec. 15.105(b)).

The complainant has attempted unsuccessfully to work through your usual complaint resolution process and as a result the matter has been referred to our office. The FCC prefers that those responsible for the proper operation of power lines assume their responsibilities fairly. This means that your utility company should locate the source of any interference caused by its equipment and make necessary corrections within a reasonable time.

While the FCC has confidence that most utility companies are able to resolve these issues voluntarily, the FCC wants to make your office aware that this unresolved problem may be a violation of FCC rules and could result in a monetary forfeiture for each occurrence. At this stage, the FCC encourages the parties to resolve this problem without FCC intervention, but if necessary to facilitate resolution, the FCC may investigate possible rules violations and address appropriate remedies.

The American Radio Relay League, a national organization of Amateur Radio operators, may be able to offer help and guidance about radio interference that involves Amateur Radio operators.

American Radio Relay League
Radio Frequency Interference Desk
225 Main Street
Newington, CT 06111
860-594-0200

E-mail: rfi@arrl.org

Please advise the complainant what steps your utility company is taking to correct this reported interference problem. The FCC expects that most cases can be resolved within 60 days of the time they are first reported to the utility company. If you are unable to resolve this within 60 days, please advise this office about the nature of the problem, the steps you are taking to resolve it and the estimated time in which those steps can be accomplished.

If you have any questions about this matter, please contact:

W. Riley Hollingsworth
Special Counsel
Enforcement Bureau, FCC
E-mail: **rholling@fcc.gov**

Thank you for your cooperation.

Sincerely,

Sharon Bowers, Deputy Chief
Consumer Inquiries & Complaint Division
Consumer & Governmental Affairs Bureau